BROOKHAVEN BULLETIN
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BROOKHAVEN NATIONAL LABORATORY

Booster Cell Testing Starts; First Four Cells Installed

In a carefully choreographed sequence of events, crews working on the Booster being constructed at the Alternating Gradient Synchrotron (AGS) are testing and installing 48 vacuum and magnet units — one at a time.

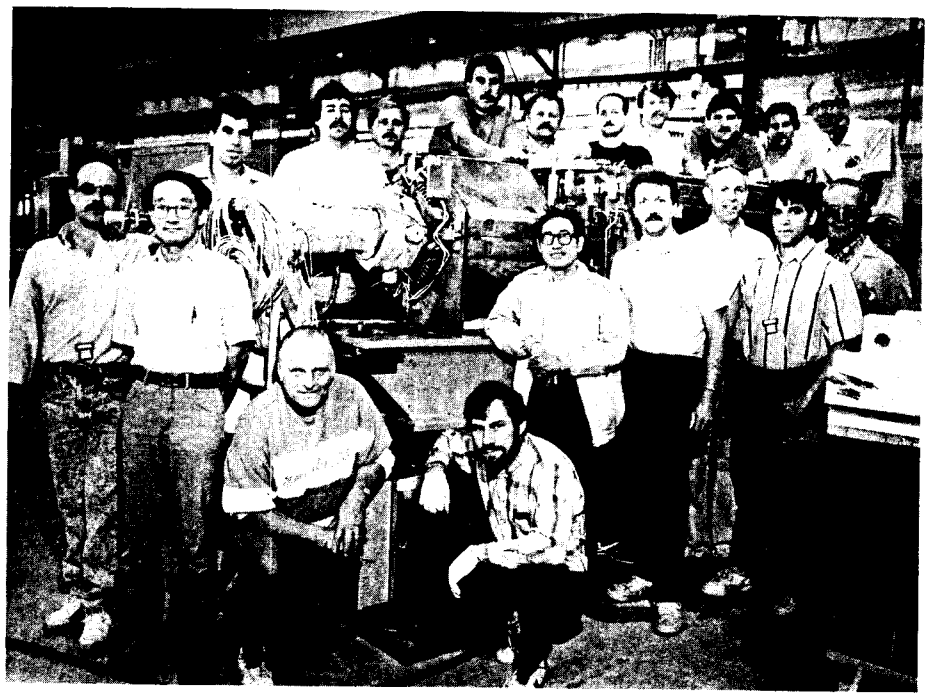
These units, called "half cells" and "quarter cells," form the magnetic components of the new Booster. When completed, the Booster will increase the proton intensity in the AGS by a factor of four and accelerate heavy ions up to gold for the AGS and eventually for BNL's proposed Relativistic Heavy Ion Collider (RHIC).

Bill Weng, who manages the Booster Project for the AGS, says construction should be complete by the end of this year, and the Booster should be ready to operate by its scheduled start-up date of April, 1991.

As Booster construction enters its final six months, the Booster Vacuum Group, led by Dick Hseuh, is testing the vacuum chamber in each of 36 half cells and 12 quarter cells after they have been assembled by the Booster Mechanical Support Group in Bldg. 935.

A 12-ton half cell consists of one dipole, one quadrupole, one sextupole and one correction magnet to keep the beam on course and tightly focused; these surround the vacuum chamber, which contains the particle beam. A 1.5-ton quarter cell is identical but lacks a dipole magnet. According to Weng, these missing dipoles create open, straight sections in the tunnel for installation of radio frequency accelerating cavities and other components.

Hseuh says the relatively tight working area of the tunnel necessitates complete testing of each vacuum chamber before the cells are installed. "Basically, we need to make sure every cell will reach the designed vacuum, in the low range of 10^{-11} torr," he explains, "so when they are put in the tunnel and joined together the whole ring will reach the same vacuum.



The Booster cell production team with a partially assembled half cell in Bldg. 935: (kneeling, from left) Jim Mottl and Victor Usack; (middle, from left) Tony Arno, Dick Hseuh, Bao Hua Shen, Pete Schnitzenbaumer, John Koehler, Tony Nicoletti and George Smith; (top, from left) Bob Sikora, Terry Higgins, Dennis Remski, Steve Donovan, Conrad Dabrowski, John McCaffrey, Kenny Vitkun, Mike Hamilton, Glen Boyle and Bill Van Zwienen.

"Based on past experience, I thought it would take a week to test each unit," Hseuh says. "But things went much more smoothly than I expected." Instead of one week, it took only two days to obtain the desired pressure in each of the six half cells and one quarter cell tested so far.

Hseuh attributes this success to the meticulous design and careful planning that went into the construction of the vacuum chambers: The parts for each were chemically cleaned, welded and assembled in the sterile environment of a clean room.

Another crucial component of each cell is the beam position monitor (BPM), located in the vacuum chamber between the quadrupole and sextupole magnets. The BPM produces an electrical signal that indicates the beam's position in the chamber.

Because the vacuum chamber expands when it is heated as a final step prior to achieving a vacuum, the Booster design team had to ensure that the BPM would resume its nor-

(continued on page 3)

BNL Proposes 479 Corrective Actions In Response to Tiger Team's Findings

In the most recent draft of its Action Plan issued June 5, BNL has proposed 479 corrective actions as solutions to the Tiger Team's environment, safety and health (ES&H) findings.

The independent Tiger Team of 40 ES&H experts was sent to BNL by the U.S. Department of Energy (DOE) on March 26-April 27. After appraising BNL's compliance with all applicable ES&H laws, the group drafted its 2-½-inch-thick Tiger Team Assessment report complete with appendices.

BNL was the thirteenth DOE site and the first non-defense facility to be reviewed by a DOE tiger team. Tiger Team assessments are one of the ten points in an initiative begun last June by Energy Secretary James Watkins to strengthen DOE's ES&H programs and waste-management operations.

Made public on June 12, the Tiger Team draft on BNL noted, "The assessment did not identify any problems at Brookhaven which present an undue risk to public health or the environment."

Though its mission was to identify ES&H deficiencies, not excellence, the Tiger Team also recognized two "noteworthy" practices.

After being briefed about BNL by the Tiger Team leader, Watkins discussed the team's findings in a letter to Robert Hughes, President of Associated Universities, Inc. (AUI), which is under contract with DOE to operate BNL.

In the letter, Watkins commented, "I am pleased to learn that BNL has made progress over the past several months in improving its environment, safety and health programs. The clear statement by BNL senior management that 'research and ES&H go hand in hand' and the progress made by the Laboratory in preparation for the assessment are encouraging steps. I believe that BNL can further improve its ES&H programs significantly by applying the same disciplined approach and critical self-assessment techniques that have made scientific activities at the Laboratory so successful."

In response to the 66 environmental, 69 technical safety and 22 management-practice findings discussed by the team in its assessment report, BNL wrote its one-inch-thick Action Plan.

Of the 479 corrective actions therein, 59 percent will be completed by September 30, the end of the fiscal year (FY). By the end of FY91, 89 percent will be done, and 96 percent by the end of FY92.

For instance, of the 244 violations of the Occupational Safety & Health Administration's (OSHA) standards found by the Tiger Team — none of which were classified as "imminent danger" — the Lab will have corrected 89 percent by the end of FY90.

(continued on page 3)

During the Tiger Team visit, 37 out of 49 aboveground tanks in which BNL stores some of its toxic and hazardous materials, such as the ones seen above left, were inspected by team members.

The Tiger Team also learned first hand from the Suffolk County Department of Health Services that the Lab has been meeting the County's expectations in its upgrade of all toxic and hazardous materials storage facilities. This upgrade is required under BNL's agreement with Suffolk County to abide by Article 12, among others, of the Sanitary Code.

Though cited as a finding in the Tiger Team Assessment report, deficiencies in storage facilities such as the aboveground tanks, the Tiger Team concluded, were solely due to the lack of resources to complete the upgrade faster.

Barbara Royce (second from left), Safety & Environmental Protection Division (S&EP), and Kenneth Davis (second from right), Plant Engineering Division, review the on-going aboveground-storage tank upgrade with: (from left) Assistant to the Director M. Sue Davis, BNL Deputy Director Martin Blume, Plant Engineering Deputy Manager Bruce Medaris, and S&EP Head Robert Casey.

Coming Up

This weekend, BNL's Amateur Radio Club and the Suffolk County Radio Club will turn one of the lab's softball fields into emergency communications center.

There, they will compete with hundreds of thousands of ham operators across the North American continent to test their skills in emergency communication in the field. The field day is the culmination of the week of June 18-24, which Governor Mario Cuomo has proclaimed Amateur Radio Week in New York State.

This 24-hour field day is open to the public on Saturday, June 23, from 2 p.m. to 6 p.m., and on Sunday, June 24, from 9 a.m. to 2 p.m.

•

The Cavani String Quartet, winners of the prestigious Naumberg Chamber Music Award in 1989, will appear in concert in Berkner Hall, on Thursday, July 5, in a special summer concert offered by BERA in conjunction with the Workshop on Experiments and Detectors for a Relativistic Heavy Ion Collider, to be held at BNL July 2-7.

On the program will be Donald Erb's String Quartet #2 (1990); Mozart's String Quartet in C Major, K. 157; and Tchaikovsky's String Quartet in D Major, Op. 11.

Tickets are $10 each and can be purchased at the door.

Informed Consumers Can Help Lower BNL's Medical Costs

As the cost of health care in the U.S. continues to rise at an alarming rate, employer-sponsored group medical insurance plans continue to absorb many of those costs.

In 1989 alone, employer-sponsored group medical insurance plans experienced cost increases of approximately 17 percent. And, says Richard Schonberg, Deputy Personnel Manager, the Laboratory was not immune.

During 1989, BNL's medical insurance and health maintenance organization (HMO) costs rose by $1,900,000, or 16.7 percent. In total last year, BNL's medical insurance benefits cost were close to $13,300,000 — for an average of about $4,000 per employee. Those costs were almost $5 million, or 60 percent more than in 1985.

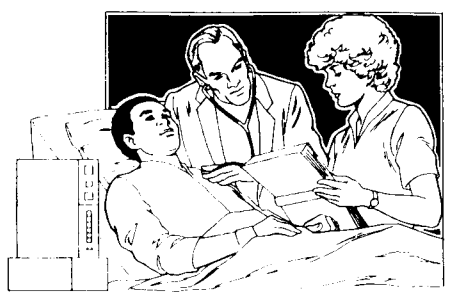
Why are the cost increases so staggering?

"The primary reason," says Schonberg, "is 'medical-cost inflation,' with physician and hospital charges being increased at a significantly higher rate than general inflation. Other contributing factors are advances in medical technology and new surgical procedures, such as organ transplants. Catastrophic illnesses involving extensive medical care also drive up the costs. Still another factor is increasing life expectancy, with older people requiring more medical services."

Under the AUI Medical Plan, these costs are borne entirely and directly by the Laboratory, which contracts with the Connecticut General Life Insurance Company to administer the plan. "With ever-tightening budgets," explains Schonberg, "the Lab can't afford these staggering benefit costs increases, since the Department of Energy does not provide us with extra funds to offset them."

To pay for the costs of employees' medical insurance and other benefits, the Laboratory "taxes" the BNL payroll, explained John Hauser, Deputy Budget Officer in the Budget Office. "If costs exceed the amount set aside," he said, "the tax must be increased. And, therefore, the money is not available for research."

BNL pays the full cost for each employee enrolled in the AUI Medical Plan, and an equal amount for each employee who chooses to enroll in an HMO. In similar situations, the trend among many employers has been to require that employees share some or more of these costs.



Be an Informed Consumer

"This is an alternative BNL would like to avoid," Schonberg says, "so it is imperative that every employee try to help in controlling the Lab's medical insurance costs. We're not trying to reduce the level of care or coverage. We'd just like to see employees become informed consumers of medical services."

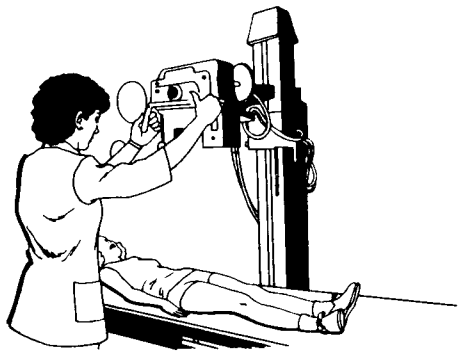
An informed medical consumer is a person who asks questions of doctors and hospitals, and who is generally better informed when choosing health care. Because such people usually have a better understanding of their medical problems and possible course of treatment, they can choose effective, cost-efficient methods of treatment.

To start this process, Schonberg recommends asking key questions when a doctor suggests hospitalization for testing, treatment or surgery, such as: What is the diagnosis (if known)? Why is hospitalization necessary? Will tests be needed? What will they tell? Can the testing or surgical procedure be done outside the hospital, or at least on an outpatient basis? Are there alternatives to surgery?

Under the AUI Medical Plan, there are two benefits that can help employees be better medical consumers:

• **Second Surgical Opinion** — While the number of surgical procedures performed in the U.S. has increased dramatically during the last decade, studies have shown that there are a great many operations that are medically unnecessary and might be avoided if patients have the opportunity to make informed decisions.

The Second Surgical Opinion benefit pays the full cost for obtaining a second opinion from a qualified specialist. In the event of a differing opinion, the patient may seek a third opinion, which will also be fully covered.



Although this benefit applies to any surgical procedure, there are 13 elective operations for which a second opinion is required. Nationwide statistics show that for these procedures, a second opinion failed to confirm surgery in as many as 30 percent of the cases.

After using the Second Surgical Opinion benefit, the final decision is up to the patient.

• **Outpatient Surgery** — For most minor surgery, outpatient surgery is an economical alternative to hospitalization. The AUI Medical Plan covers 100 percent of the reasonable and customary charges rendered by any hospital whenever surgery is performed on an outpatient basis or at any free-standing ambulatory surgical facility. The surgeon's fee, if charged separately, is paid according to the surgical schedule listed in the Certificate of Insurance booklet.

An Ounce of Prevention

Of course the best way to reduce medical costs is to stay healthy — and the Laboratory plans to work ever more closely with employees to promote better health.

Bryce Breitenstein, who heads BNL's Occupational Medicine Clinic (OMC), says, "There are many ways that the Laboratory and employees can work together to improve employee health and reduce BNL's medical insurance costs. For example, stress management and other life-style health issues will be emphasized as part of the lunchtime workshop series being organized by our new Employee Assistance Program psychologist, Donna Friedman.

"The biggest health risk now at the Lab is cigarette smoking," Breitenstein adds. "It's imperative that we help people to stop. In terms of their health, the payoff will be very big, and the evidence is very strong that there are big cost savings in medical insurance and lost time from work once there are fewer smokers on the payroll."

Instituting programs to help employees quit smoking will be one priority for the full-time health promotion specialist whom Breitenstein will be adding to the OMC within the next few months. Another priority will involve initiating a health-risk appraisal procedure by which employees' lifestyles will be evaluated at the time of their medical examinations, to help them make any changes that might increase their longevity and quality of life.

"Programs for promoting better health and benefits such as second surgical opinion are good tools for helping employees become more informed consumers of medical care," concluded Schonberg, "but like any tools, they're no good unless they're used. We're hoping employees will use them in cooperation with the Laboratory, to help keep BNL's medical costs at a manageable level."

NYPA Contract Renewed

Since 1982, BNL has been getting the lion's share of its electric power from the Fitzpatrick Nuclear Power Plant, under a contract with the New York Power Authority (NYPA). Now, that contract has been extended for five years, through June 30, 1995. Successive one-year terms may be added to the contract through June 30, 2000, with NYPA approval.

This means that BNL will continue to realize substantial savings on its electric bill — NYPA's rate is 4.8¢/kilowatt hour (kWh), while the Long Island Lighting Company (LILCO) rate averages 7.8¢/kWh.

"Over the past eight years, " explained In-House Energy Manager Mark Culp, "NYPA power has displaced 1.35 billion kilowatt hours of LILCO power, for a savings of $45.2 million in energy costs." In fiscal year 1989 alone, these savings amounted to $6 million.

Under the new contract, BNL may use as much as 18,781 kW of Fitzpatrick power each year, as well as an additional 8,129 kW that are on assignment from Reynolds Metal. This is essentially the same allotment that accounted for an average of 77 percent of the Laboratory's power requirements under the previous contract.

BNL is the biggest industrial user of power from the Fitzpatrick plant, which is located in upstate Oswego County, on Lake Ontario. NYPA's rate to BNL includes the charges from both Con Edison and LILCO for allowing the electricity to cross their grids on its way to the Lab.

Global Climate Conference

Approximately 40 scientists from around the country met June 4-6 for BNL's Global Climate Feedback Workshop sponsored by the Department of Applied Science (DAS) as part of its global change research program.

Workshop coordinator Bernard Manowitz said the participants discussed the complex feedback phenomena by which enviromental elements such as ocean masses, land surfaces and water vapor interact to accelerate or reverse climatic changes. The scientists also made a series of recommendations for research that would resolve major areas of uncertainty in the field.

Among the climatologists, oceanographers, terrestrial ecologists and others attending the workshop were: (front, from left) DAS scientists George Hendrey and Stephen Schwartz; Fakhri Bazzaz, Harvard University; (center back, from left) Dave Schimel, Colorado State University; William Emanuel, Oak Ridge National Laboratory; Bill Hibler, Dartmouth College; and Andrew Heymsfield, National Center for Atmospheric Research.

Addled Addresses

- Critical Research Center
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Photos in this issue by Roger Stoutenburgh.

Booster (cont'd)

mal position once the metal cooled and contracted. The cell structure passed this test, says Weng, "and proving that took many hours of careful measurements."

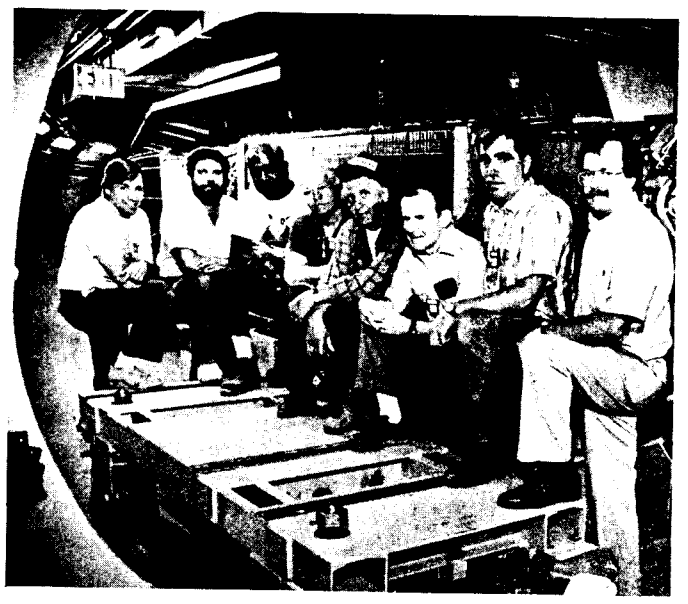
Once testing is complete, installation crews led by William McGahern must wheedle and cajole each 14-foot-long half cell and the 5-foot quarter cells into their exact positions in the tunnel.

AGS riggers haul each cell on its steel base from the assembly building to the tunnel on a flat-bed truck. Using a crane, installation crews then place it on a special, electrically powered transporter designed by Thomas Muller and Frank DiMaggio. This versatile device is small enough to maneuver in the 11-foot-wide tunnel, but strong enough to cart the heavy cells. "Installation of components would be impossible without it," says McGahern.

The position of each cell in the tunnel must be exact to within 0.1 millimeter so that the orbit of the particle beam can be precisely controlled. The AGS survey team determines the precise locations for the steel stands that support each cell and its base. AGS riggers and mechanical service technicians bolt the stands into place and attach jack assemblies — which allow fine-tuning of the cells' height and lateral position — to the top of each stand.

McGahern says the installation of the cell on this stand is basically a four-part process. First, the survey crew aligns each cell on its stand relative to the position of an imaginary particle beam. Then, the mechanical service group connects the cell to the water-cooled, high-current bus that runs along the tunnel wall. Next, the main magnet-cooling water system is also hooked up. Finally, the beam service technicians connect the power lead cables, unit by unit.

So far, five half cells and one quarter cell have been delivered to the tunnel; of these, four have been installed. "We're taking our time with the first few to be sure we get it right," McGahern says. "Once the first few are installed, the rest will be easier."



Some members of the Booster installation team, shown here in the Booster tunnel with a specially designed transporter: (from left) Fred Kobasiuk, Joe Scaduto, Carnal Hobson, George Martin, Fred Strelecki, Robert Kowalski, Frank Karl and Bill McGahern.

Bill Weng notes that it has taken extra staff from the Plant Engineering Division and other divisions of the AGS Department to keep the ball rolling. But now that the Booster teams have reached this crucial phase, says McGahern, the momentum of the project and the sense of team effort are stronger than ever. "Everyone wants it to be a success sooner rather than later," he says.

— Lisa O'Rourke

[O'Rourke is a summer student in the BNL Public Affairs Office.]

No Big Surprises Found By Surprise OSHA Inspection

During the annual, surprise workplace inspection of BNL on June 11-15 by the Chicago Operations Office of the U.S. Department of Energy, 94 percent of the 88 occupational safety violations found were considered "other than serious."

Almost 58 percent of all violations were taken care of immediately or before the end of the inspection. The remainder will be resolved in up to 60 days.

"The inspector stated that he was impressed with our level of occupational safety," says M. Sue Davis, Assistant to the Director. "In general, he said, where housekeeping was good, there were not many violations."

The 83 other-than-serious violations included: a fan in the doorway of the Firehouse, a worn power cord on a soldering iron in Bldg. 919, an unlabeled bottle in Bldg. 902, an inaccessible fire extinguisher at Curie House, and boxes stored on the floor in Bldg. 515.

The five "serious" violations were eliminated immediately. They were: a missing blade guard on a table saw at the AGS carpenter shop, missing panels on a walkway over electrical wires at the AGS Multiparticle Spectrometer, a taped door-interlock switch in Bldg. 945, and missing finger guards on paper cutters in Bldg. 905 and 945.

BNL Actions (cont'd)

All except for two findings, or 1 percent, will be acted upon during FY91.

For 100 percent compliance in the four areas assessed by the Tiger Team — environment, management, technical safety and OSHA — the total cost is estimated at $68 million in one-time expenses plus $11 million per year in recurring costs.

"We are now preparing requests to DOE for funding that will allow us to carry out the proposed corrective actions," explains BNL Deputy Director Martin Blume, who heads BNL's Task Force on Safety & Environmental Protection. "And we hope that DOE will enable us to undertake as many of these necessary actions as possible."

Three Primary Concerns

"Basically, the Tiger Team raised three primary ES&H concerns with BNL," explains M. Sue Davis, an assistant to the director. She works with Gerald Kinne, BNL's Associate Director for Reactor, Safety & Security, who has the responsibility for BNL's ES&H policy and procedures.

First, the Tiger Team recommended that the Lab develop more formal ES&H policies and procedures.

Moving towards more formal ES&H operations and improved compliance, an operations task force will be organized to develop Brookhaven's new Safety and Administrative Policy and Procedures Manual (SAPPM) by April 30, 1991.

According to BNL's Action Plan, the manual will establish minimum ES&H requirements for the operation of each department and division on site; establish line-management authority and responsibility for implementing and enforcing ES&H policy and procedures; and define the levels of ES&H training required.

SAPPM will also be the standard against which a new committee of independent experts will audit BNL's ES&H compliance every three years for AUI.

Comprehensive 5-Year Plan

To ensure that the ES&H culture brought to BNL by the Tiger Team flourishes into the future, BNL will issue a comprehensive, five-year ES&H plan. Due out by March of next year, it will define the Lab's long-term ES&H goals, identify deficiencies, and outline corrective measures and upgrades.

The second major issue addressed by the Tiger Team is the need for additional training.

While the Lab trains its employees in a range of areas, the training programs will be expanded, strengthened and formalized. By June 30, a training task force will be organized to review current training programs, specify new programs to be developed, ensure that those programs are properly documented, and recommend who should be trained in what areas.

In addition, education on OSHA standards will be incorporated into all training programs.

The final Tiger Team concern was the characterization of the site's hydrology and geology, as well as remediation of the contaminated areas on site.

Following a 1987 DOE environmental survey of BNL and other facilities, BNL began a five-year initiative to upgrade its groundwater monitoring program and to characterize contaminated areas. The Tiger Team, however, made a number of points regarding the progress of BNL's monitoring and characterization programs, and about the lack of a hydrogeologist on the staff of the Lab's Safety & Environmental Protection Division (S&EP).

So, in the near future, a hydrogeologist will be hired, and a number of other S&EP specialists will be added as the site characterization program develops.

In November 1989, the Lab was included on the Environmental Protection Agency's (EPA) "Superfund" national priorities list because of the potential threat to the sole-source aquifer from past disposal practices at the Lab's old and present landfills. Part of the aquifer, which underlies all of Long Island, lies under the BNL site.

An interagency agreement among DOE, EPA and the New York State Department of Environmental Conservation (NYSDEC) regarding the characterization and remediation of contaminated areas on site is now being negotiated.

Once this is signed, the DOE's cleanup of BNL can begin and will include areas of Tiger Team concern.

The cleanup will be reviewed by the EPA and NYDEC, and the same agencies will also review a comprehensive groundwater plan, to be issued by the end of the year.

"As a result of the Tiger Team's visit, we have gained a deeper appreciation of our groundwater situation," says S&EP Head Robert Casey. "While we were aware of the other ES&H issues before the assessment, we now have a clear understanding with DOE about our ES&H priorities, progress and funding needs."

A copy of BNL's Action Plan draft, along with the Tiger Team Assessment draft, may be found in BNL's Research Library, Bldg. 477.

— Marsha Belford

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Speakers Bureau

Swapna Mukherji, PE; Career Awareness Program at Harborfields High School, "Careers in Engineering," Jan. 9.

Vance Sailor, DNE retired; Glen Cove Rotary Club, "Nuclear Power," Jan. 23.

William Marcuse, DO; Suffolk Community College East End Executive Association, "Technology Transfer," Jan. 29.

Raymond Mayo, PE; **Williams Sells**, S&EP; **Lawrence Toler**, Physics; Brookhaven Learning Center, "Careers at BNL," January 31.

Eloise Gmur, DO; West Middle Island School, "Science Fair," February 8.

Augustus Prince, DNE; Black History Month at Andrew Jackson High School, "The Making of a Scientist," February 28.

Louise Hanson, DAS; **Jonathan Hanson**, Chem.; Long Island Math Fair at Suffolk Community College, Judges, March 2.

James Brower, S&EP; Elwood School District Career Day, "Careers in Science & Math," March 21.

Rosario Enriquez-Leder, AGS; Career Exploration Night for Girls at Jonas E. Salk Middle School, "Careers for Women in Science," March 29.

Edward Beadle, AGS; Commack High School Career Day, "Careers in Science and Engineering," April 2.

David Alexoff, Chem.; Career Awareness Day at Westhampton High School, "PET Research at BNL," April 4.

Ronald Peierls, DAS; Foreign Policy Program for Long Island, "Global Warming," April 5.

Andrew Hull, S&EP; Earth Day Conference, Brooklyn College, "Radiation & Radioactivity: Benefits & Risks," April 19.

Augustus Prince, DNE; Career Day at Amityville High School, "Careers in Science," April 25.

Louise Hanson, DAS; Easthampton High School Science Day, "Careers in Chemistry," April 26.

Donald Gardner, Phys.; Bellport Middle School Career Day, "Careers in Engineering," April 27.

Louise Hanson, DAS; Long Island Math Fair at Hofstra University, Judge, April 27.

Richard Scheidet, PE; Boy Scouts Eagle Ceremony, Presentation of Award, May 8.

Rudy Alforque, NSLS; Comsewogue High School Career Awareness Program, "Careers in Engineering," May 15.

Scott Willenbrock, Phys.; Suffolk County Science Explorations, "Dark Matter in the Universe," May 21.

Michael Creutz, Phys.; Nassau County Science Explorations, "Relativity, Quantum Mechanics and Antimatter," May 22.

Sara Dawson, Phys.; Nassau County Science Explorations, "Physics and the Early Universe," May 22.

Donald Gardner, Phys.; Newfield High School, Career Awareness Program, "Careers in Engineering," May 30.

Meyer Steinberg, DAS; Rotary Club of Lake Ronkonkoma, "Energy and the Environment," May 31.

In Memoriam

Carl J. Pozgay, who retired as a design engineer in the Alternating Gradient Synchrotron Department in 1981, died on June 14 at the age of 69, of a massive cerebral hemorrhage.

After retiring with 11 years of Lab service, Pozgay returned to BNL as a guest senior mechanical designer, from 1983-84.

Pozgay was a resident of Shoreham. He is survived by his wife Connie; his mother Margaret, of Baldwin; a sister, Peggy Welton of Annandale, Virginia; two daughters, Carol Adams of Wading River and Catherine McGowan of Port Jefferson; two sons, Carl Robert of Sound Beach, and Kurt of Shoreham; and two grandchildren, Caitlin McGowan and Matthew McGrath.

Attention Parents

Today is the deadline to sign up children of Lab employees for swimming classes offered through BERA's summer recreation program. Applications are available at the BERA Sales Office or the swimming pool. The classes run July 2-August 24. For more information, call Kay Dellimore, Ext. 2873.

On the Menu

At the Cafeteria

Monday, June 25	
Soup: Minestrone	.75/.95
Entree: Veal & peppers hero	3.10
Entree: Baked ziti	3.10
Fitness: Chef's special	3.10
Carvery: Hot pastrami sandwich	2.85
SPICE: Good humor special	
Tuesday, June 26	
Soup: Cream of broccoli	.75/.95
Entree: BBQ chicken	3.10
Entree: Linguini w/white sauce	3.10
Fitness: Broccoli au gratin over baked potato	3.10
Carvery: Hot roast beef sandwich	2.85
SPICE: Muffin mania	
Wednesday, June 27	
Soup: Black bean	.75/.95
Entree: Arroz con pollo	3.10
Entree: Baked Mexican fish	3.10
Fitness: Vegetarian peppers	3.10
Carvery: Hot corned beef	2.85
SPICE: California feeling	
Thursday, June 28	
Soup: Navy bean	.75/.95
Entree: Sausage & pepper hero	3.10
Entree: Grilled beef kabobs	3.10
Fitness: Vegetable plate	2.50
Carvery: Black Forest ham	2.85
SPICE: Fruit Fantasia	
Friday, June 29	
Soup: Fisherman chowder	.75/.95
Entree: Hot fried plate	3.10
Entree: Honey-dipped chicken	3.10
Fitness: Cheese & vegetable casserole	3.10
Carvery: Hot turkey sandwich w/cranberry sauce	2.85
SPICE: Greek gyros made to order	

Scoop of the Week

Summer began yesterday, June 21 at 11:33 a.m. Eastern Standard Time — and, at that very minute, the third annual Scoop of the Week contest got under way.

The first scoop of the summer season goes to Gary Kaczmarczyk of the Safety & Environmental Protection Division, for reminding the Bulletin that June 24-30 is National Safety Week.

Throughout the summer, Bulletin readers are invited to trade their hot tips for scoops of frozen yogurt in the Scoop of the Week contest. To enter, rush your ideas for BNL news or features to the Brookhaven Bulletin, Bldg. 134, or call Ext. 5053. If you scoop the Bulletin's informed sources and a story based on you idea is published, then you'll win an official certificate for soft-serve, frozen yogurt, redeemable anytime at the Cafeteria.

Seminar and Equipment Demo

Representatives from RTI will hold an IEEE 488-based data acquisition seminar in Room D, Berkner Hall, on Wednesday, June 27. At 10:30 a.m. and 1:30 p.m. the hands-on seminar will show how to develop and diagnose the IEEE 488 systems supplied by IOtech, Inc.

For more information or to register, call Gail McGahy, 829-3770.

Also on that day, RTI will host a display in the Berkner Hall lobby, showing the products of Anritsu, Elgar, Eni, IOtech, Kontron, Racal-Dana, Talon and Wavetek.

Radio Club

The Amateur Radio Club will meet in Berkner Hall Room A, on Thursday, June 28, at noon. The agenda includes a summary of the Field Day activities of the previous weekend and the status of amateur radio licensing classes.

All licensed radio amateurs who are employed at BNL, those wishing to obtain amateur radio licenses, and guests at the Lab are invited to attend. For more information, contact Andy Feldman, Ext. 3264, or Bob Bacharach, Ext. 7790.

Softball

Standings as of June 15

League I		League II	
Ravens	5-0	CCD	5-0
Cool 'n Gang	4-1	Setback	4-1
Blue Jays	3-2	Dirty Sox	3-2
Phoubars	3-2	Lights Out	3-2
Six Pax	2-3	Scrambled Legs	2-3
Light Source	1-4	Bombers	1-4
Cutting Edge	1-4	Scram	1-4
Magnuts	1-4	Titans	1-4
League III		**League IV**	
Cocoon	5-0	Brewers	3-1
Medical	4-2	Snakebites	3-1
Blue Knights	3-2	Simply Awesome	2-1
Phase Out	3-2	Fielder's Choice	1-2
Quantum	1-5	Kids R Us	1-2
Sure Fire	0-5	Survivors	1-2
		Source	0-4
League V			
What's on 2nd	4-1	Turkeys	1-2
Cosmic Debris	3-1	Mudville Sluggers	1-4
Underalls	3-1	Foul Ups	0-3
Sandboxers	2-2		

PLAY IT STRAIGHT FOR Safety's SAKE!

National Safety Week

JUNE 24 -30, 1990

Next week is National Safety Week, and, in an effort to combat drug abuse in the workplace, the American Society of Safety Engineers (ASSE) urges workers nationwide to "Play It Straight for Safety's Sake."

Drug- and alcohol-abusing workers are 3.6 times more likely to injure themselves or others. They are also absent more often, less productive and incur greater medical costs than other employees.

Enforce your right to a drug-free workplace. Learn the facts about drug and alcohol abuse. Don't assist troubled coworkers in covering up their problems — refer them to BNL's Employee Assistance Program (EAP) so they can get professional help. And if you suspect that you may have a drug or alcohol problem, ask for help yourself by placing a confidential call to EAP at Ext. 4567.

As stated in BNL's Alcohol and Substance Abuse Policy, "The Laboratory recognizes that alcohol and substance abuse are illnesses which can be treated and is prepared to offer assistance to affected employees."

For the complete policy, refer to BNL's Employee Guide.

IBEW Meeting

Local 2230, IBEW, will hold its regular monthly meeting on Monday, June 25, at 6 p.m., in the Knights of Columbus Hall, Railroad Avenue, Patchogue. On the agenda will be regular business, committee reports and the president's report.

Summer Volleyball

The outdoor volleyball courts have been set up, and pickup games will take place on Monday and Wednesday evenings at 5:30 p.m. You can borrow a volleyball from the gym attendant in exchange for your Lab ID card. For more information, call Kathi Barkigia, Ext. 7661.

Bright Reward For Bright Ideas

Employees who submit original ideas to the Employee Suggestion Program (ESP) now receive a complimentary penlight, imprinted with the ESP logo — the program's way of saying, "Thank you for participating!" So don't wait — submit your bright idea today!

ESP IDEAS COUNT

Arrivals & Departures

Arrivals

John T. DeLalio.....Accel. Dev.
Gregory T. Flett.....Plant Eng.
Simon J. George.....NSLS
Shigehiro Hayashi.....Physics
Leonard S. Santangelo....Cent. Shop
Nick P. Scala.....Fiscal
William R. Softye.....Plant Eng.
Baorui Yang.....Chemistry
Nabil Youssef.....Accel. Dev.

Departures

This list includes all employees who have terminated from the Lab, including retirees:

Joseph C. Balsamo Jr......S&EP
Enrique V. Barrera.....DAS

Golf Tournament

The third BGA tournament of 1990 will be held on Monday, July 2, at the Timber Point Suffolk County Golf Course, under stroke-play rules. Call See-Meng Wong, Ext. 2111, to arrange a tee-off time. Tee-times run from 10 a.m. to noon, depending on the number of people who sign up. Due to the July 4 holiday, our numbers may be down, therefore shortening the sign-up block.

The greens fees are $12 for Suffolk County residents, $6 for Suffolk senior citizens, and $24 for non-Suffolk residents. Sign-up deadline is June 28, and all callers should have a complete foursome before calling. In the event of rain, please call the Pro-Shop at 581-2401.

Classified Advertisements

Placement Notices

The Laboratory's placement policy is to select the best-qualified candidate for an available position, with consideration given to candidates in the following order of priority: (1) present employees within the department and/or appropriate bargaining unit, with preference to those within the immediate work group; (2) present employees within the Laboratory as a whole; and (3) outside applicants. In keeping with the Affirmative Action plan, selection decisions are made without regard to age, race, color, religion, national origin, sex, handicap or veteran status.

Each week, the Personnel Office lists new personnel placement requisitions. The purpose of these listings is, first, to provide open placement information on all non-scientific staff positions; second, to give employees an opportunity to request consideration for themselves through Personnel; and, finally, for general recruiting purposes. Because of the priority preference policy stated above, each listing does not necessarily represent an opportunity for all candidates. As a guide to readers, the listings are grouped according to the anticipated area of recruitment.

Except when operational needs require otherwise, positions will remain open for one week following publication date.

For further information regarding a placement listing, contact the Employment Manager, Ext. 2882.

The vacancies listed below have been exempted by the Director's Office from the current freeze on open requisitions.

SCIENTIFIC RECRUITMENT - Candidates may apply directly to the department representative named or through the Office of Scientific Personnel, Ext. 7813.

NUCLEAR MEDICINE PHYSICIAN - with an interest in epidemiology. Duties will be split between sharing responsibilities for the Marshall Islands Medical Program and participating in preclinical and clinical nuclear medicine research. Contact A.D. Chanana, Medical Department.

LABORATORY RECRUITMENT - Opportunities for Laboratory employees only.

4250. SECRETARIAL POSITION - (term position) Requires AAS in secretarial science or equivalent, a broad knowledge of Laboratory policies and procedures, demonstrated organizational abilities and excellent communication skills. Will perform secretarial duties for Experimental Program Support/Beamline R&D groups. Responsibilities will include preparation of technical documents, correspondence and travel. National Synchrotron Light Source Department.

4251. SECRETARIAL POSITION - Requires AAS in secretarial science or equivalent and a thorough knowledge of Laboratory policies and procedures. Will provide secretarial support for Environmental Protection Group. Excellent communication skills and IBM PC experience also required. Familiarity with WordPerfect desired. Safety & Environmental Protection Division.

4252. SECRETARIAL POSITION - Requires AAS in secretarial science or equivalent and a thorough knowledge of Laboratory policies and procedures. Duties will include maintaining, in accordance with federal requirements, record-filing system to support environmental response decisions. Demonstrated excellent organizational abilities and previous PC experience also required. Safety and Environmental Protection Division.

4253. SECRETARIAL POSITION - Requires AAS in secretarial science or equivalent and a broad knowledge of Laboratory policies and procedures. Will provide secretarial support to Nuclear Standards Group. Duties will include preparing procedures, correspondence and reports, arranging travel, and maintaining files. Ability to obtain and maintain security clearance is required. Reactor Division.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside applicants.

4254. HEALTH PROMOTION SPECIALIST - Requires BS degree in health education/physiology or closely related field, excellent communication skills and experience in the design and implementation of work site wellness programs. Will maintain a disease prevention/health maintenance program for employees. Experience in health counseling and health risk assessment necessary. (Reposting of job number 4036) Occupational Medicine Clinic.

4255. SCIENTIFIC ASSOCIATE - Requires BS in analytical chemistry and minimum of four years' experience in analysis of environmental samples for metals, organics, etc. Knowledge of Contract Laboratory Protocols (CLP) as applied to analysis of environmental samples is essential. Responsibilities will include review of analytical data for compliance with CERCLA/RCRA and applicable protocols. Safety & Environmental Protection Division.

4256. ENGINEERING POSITION - Requires BS in environmental science and minimum of four years' experience conducting environmental investigations at sites undergoing remedial investigations. Responsibilities include development of task orders for the sampling and analytical activities pertaining to CERCLA/RCRA, and ensuring that these activities are conducted within the framework of the regulatory protocols. Safety & Environmental Protection Division.

4257. ENGINEERING POSITION - Requires BS/MS in environmental or chemical engineering and minimum of five years' experience in environmental restoration and/or waste management. Responsibilities will include ensuring that all environmental restoration activities are conducted in accordance with appropriate CERCLA/RCRA and other regulatory protocols. Familiarity with federal and state environmental regulations and ability to provide QA of project activities is highly desirable. Safety & Environmental Protection Division.

4258. ENGINEERING POSITION - Requires BS/MS in environmental or chemical engineering and minimum of five years' experience in environmental restoration and/or waste management Responsibilities include management of environmental restoration projects, including coordination with regulatory agencies and remedial action contractors. Familiarity with CERCLA/RCRA and other federal and state regulations and QA highly desirable. Project management experience a plus. Safety & Environmental Protection Division.

4259. ASSISTANT PROJECT HEAD, RHIC (ES&H) - Requires a BS in physics or health physics (a graduate degree is highly desirable) and substantial experience in developing and implementing environmental, safety and health programs in a large organization. Must have familiarity with accelerators and accelerator programs, and prior experience with the development of safety analysis reports and environmental assesssments. Will be responsible for developing the environmental, safety and health program for the RHIC Project. Additional responsibilities will include ensuring the incorporation

(continued on supplement page)

See Supplement for more Placement Notices and Classified Ads.

ıassified Ads (cont'd)

appropriate provisions of DOE orders, and cal, state and federal laws into the design and onstruction programs and, eventually, the ıperating programs for RHIC. Director's Office.

4260. P&GA SPECIALIST - Requires AAS in commercial art or equivalent experience. Must be skilled in the traditional processes, including LeRoy lettering, paste-up, typography, layout and mechanical, and isometric drawings. Experience in the use of computer workstations for creating graphics is highly desirable. Photography & Graphic Arts Division.

4261. BIOLOGY ASSOCIATE - Requires a BS in biochemistry, molecular biology, chemistry or biology. Work will involve the synthesis and testing of synthetic DNA endonucleases, preparation of substrate DNAs, and chemical tagging, purification and characterization of enzymes and other proteins. Must be able to travel and work nights and weekends as necessary. Recent laboratory experience in the above-mentioned disciplines and computer knowledge a plus. Biology Department.

Motor Vehicles & Supplies

90 COUGAR LS - special gold edition, V-6, fully loaded, luxury options, 4.9k mi., moving, will sacrifice, warranty, $15,900. 286-1571.

89 TOYOTA SR5 - ac, stereo, more, mint cond., $9,500. 289-2159.

88 FORD PICKUP XLT 150 - clean, all the toys, 2wd, ask. $8,995 or best offer. George, 588-9459.

87 CHEVROLET CAVALIER - 2.8 liter, fuel injected, 5-spd., am/fm cass., ac, 33k mi., asking $7,000. Jerry, Ext. 7427 or 475-5591 after 5 p.m.

87 TOYOTA PICKUP 4x4 - good cond., $7,000. 751-4539.

87 MAZDA 626-LX - 4-dr., gray, a/t, ac, p/s, p/b, cass., all power, new tires, brakes, excel. cond., $6,600. 929-4622.

87 JAYCO MOTORHOME - 25', ac, gen., 16k mi., CB, awning, sleeps 6, excel. cond., best offer. Lois, Ext. 4904 or Bob, Ext. 4672 or 929-4753.

87 LEBARON COUPE - red, loaded, a/t, 36k mi., mint cond., $7,000. Tina, 585-6544.

86 YAMAHA VENTURE ROYALE - 25k mi., extras, excel. cond. Jim, 447-1381 after 5 p.m.

85 TOYOTA TERCEL - h/b, 5-spd., ac, 2-dr., 47k mi., excel. cond., $2,800 neg. 874-3927.

85 MAZDA 626LX - 4-dr., a/t, fully loaded, must be seen, $3,900. 399-4399.

84 RENAULT ALLIANCE - gray, 4-dr., valve job at 85k mi., 2 new tires, excel. cond., asking $900 neg. Janice, 345-3379 or 929-4522.

82 BUICK REGAL SOMERSET - 2-dr., p/s, p/b, p/w, ac, am/fm, 65k mi., $1,900. 363-6940 after 5 p.m.

82 TOYOTA TERCEL - 93k mi., 2-dr., 5-spd., $500. Ext. 4805 or 924-8113 eves.

82 PLYMOUTH RELIANT - 4-dr. sedan, ac, p/s, p/b, 4-cyl., am/fm, 85k mi., clean, $1,100. Bob, Ext. 2542.

82 SUNLINE TRAVEL TRAILER - 17', fully self-contained, sleeps 4-6, excel. cond. Ext. 3309 or 878-6074 eves.

82 BUICK REGAL - 6-cyl., 4-dr., ac, 75k mi., new brakes, exhaust, battery, runs well, body perfect, asking $3,100. Steve, Ext. 5567 or 821-9048.

82 VW RABBIT - 4-spd., am/fm, ac, in great shape, w/new engine, $1,795. Jim, 878-6747 after 6 p.m.

81 PLYMOUTH RELIANT - blue, 4-cyl., 2-dr., many new parts, $1,500 neg. Manny, Ext. 5409.

81 VW RABBIT LS - 2-dr., 5-spd., am/fm, runs well, some work needed, $850 or best offer. Ext. 2914 or 286-3742 eves./wknds. after July 2.

81 FAIRMONT WAGON - 4-cyl., 4-spd., 125k mi., not bad outside, great inside, runs well, $600. John, Ext. 7671.

81 RELIANT - a/t, good station car, needs minor work, $500. Ron, Ext. 2011.

81 KAWASKI 440 LTD - 12k mi., new brakes, chain sprockets, battery, tires, sissy bar, v.g. cond., must sell, asking $700. 474-5715.

81 VW RABBIT - dark green, sunroof, diesel, 5-spd., 2-dr., am/fm, excel. cond., $1,000. Greene, Ext. 3664 or 689-8090 after 7 p.m.

80 DODGE ASPEN - 66k mi., a/t, p/b, p/s, tuned up, excel. cond., $960. Ext. 5790 or 3130 after 6 p.m.

79 CHEROKEE JEEP - loaded, extra wheels & tires, orig. owner, excel. cond., asking $4,500. Jeff, Ext. 2907.

79 CHEVY C-10 - 6-cyl., good run. cond. work truck, ask. $900; '72 Ford F-250, ¾ ton, 4wd, 360 Meyer plow, ask. $1,000. Ext. 4970 or 475-6493.

79 CHEVROLET MONTE CARLO - runs well, looks great, very reliable, price neg. 475-8242.

79 JEEP WAGONEER - 4-dr., 85k mi., a/t, ac, p/b, p/s, 360 engine, orig. owner, trailer hitch, extras. Ext. 2260 or 286-1214 after 5 p.m.

79 SUNLINE TRAVEL TRAILER - sleeps 6, new tires, brakes & battery, awning, stands, excel. cond., $4,100 neg. Artie, Ext. 4988 or 325-0743.

78 OLDS DELTA 88 - 4-dr., ac, a/t, p/b, p/s, dependable, $600 neg. Maryanne, Ext. 2420.

77 CAMARO - 305 V-8, fair running cond., new battery, brakes F4B, master cyl., am/fm stereo, asking $850. Ext. 7766 or 757-2645.

75 FORD VAN - raised roof, sink, stove, sleeps 4, $1,400/best offer; '75 Suzuki street motorcycle, 260 GT, 10k mi., $200. Ext. 7699 or 821-1435.

73 TRAILSTAR POP-UP CAMPER - sleeps 6, ice box, heater, removable stove, more, v.g. cond., $850. 821-0354 after 6 p.m.

72 CHEVY CAPRICE - 8-cyl., yellow, 150k mi., runs well, $300 or best offer. Ronni, 724-5131.

70 FORD LTD - in running cond., classic, suitable for restoration or parts, $500. Pat, Ext. 4561.

56 CORVETTE - not stock, V-8, 4-spd., trans. needs some work, asking $13,500 or best offer. George, 588-9459.

31 CHRYSLER - all original, low mi., runs well, excel., $7,000. Ext. 3160 or 289-5704 after 5 p.m.

MOPED - Puch, 2-cyl, excel. cond., $175. Keith, 474-3863.

TIRES - 4, 31x11.50 LT, Goodyear Wrangler, radial mounted on rally 6-hole wheels for Chevy/G.M., $25 ea. Marie. Ext. 4207 or 732-2668.

TIRES - almost new, P17580R13, $20; 3, P185/80R13, $30; 2, 16580R13, $12. Kathy, 744-2203.

WHEELS - 2, MGB, $10 ea. John Ext. 7671.

TIRES - 6, P215/75R15, Goodyear radials on Chevy rims, good cond., $25 ea. Aron, Ext. 2434.

Boats & Marine Supplies

25' MORGAN - new sails, ob., spinnaker, 180 jib, cradle, all ready to go, will launch, $5,750. Steve, Ext. 4008.

23' O'DAY - loaded, cruising, racing, 6-sails, VHF, Loran, depth/spd., dodger, solo handling, excel. cond., extras, $10,500. 286-1024.

22' RHODES - 1974, furling 150 Genoa, pop-top, '86 8-h.p. Evin., $3,500 neg. Ext. 3969 or 878-6580.

19'2" O'DAY - 1986, all factory options, great weekender or day sailer, asking $6,500. 732-9091.

19' BAYLINER - 1986, i/o, full canvas, DF, Magic Roller trailer, $8,500 neg. Mike, Ext. 4988 or 281-3595 after 4:30 p.m.

19' RINKER - 1986, cuddy, i/o 120, w/trailer, Coast Guard pkg., $8,500 neg. Ext. 2223 or 929-6421.

19' - fiberglass, center console, '78 115-h.p. Mercury ob., '86 trailer, must sell quick, will demo., asking $3,900. Lou, Ext. 4220 or 281-3706.

18' GLASSPORT BOWRIDER - 1983, 90-h.p. Evinrude, trailer, mooring cover, approx. 110 hrs., asking $2,800. Chris, Ext. 2022 or 395-6112.

18' CATAMARAN TRAILER - beach wheels, excel. cond., $1,750. 821-0686.

18' CANOE - wood, excel. cond., $150. 821-2886.

17' FLEETCRAFT - Evinrude ob., trailer, '63 electric winch, $650 neg. 929-6646 eves.

17' GLASPAR BOWRIDER - 1971, 55-h.p. Evin., Cox trailer, extras, good cond., $1,500. 286-8582.

MOTOR - 18-h.p. Evin., $300; power winch, Scott & Fetzer Co., cable up to 3k lb, $85. 732-3002.

WINDSURFER - 3.6m board, complete rig, 6.0 RAF sail, almost new, $300. Mark, Ext. 4515.

Furnishings & Appliances

MICROWAVE OVEN - 0.75 cu. ft., 2-speed, 600 watts, $75. Bob, Ext. 4551.

LIVING ROOM SET - brown velvet, asking $600 neg. Ext. 3702 or 751-1042 after 6 p.m.

WASHER - Whirlpool, excel. cond., $40. 475-8242.

VACUUM - Regina Quick Broom, slightly used, works well, orig. $60, sell for $40. 924-2012, leave message.

AIR CONDITIONER - 6,000 Btu, good cond., $25. Ext. 7505.

WHIRLPOOL BATHTUB - new, almond, 66½" x 27", price neg.; GE upright freezer, 14.5 cu. ft. 727-0486 or 722-4786.

DRESSER - antique, 2-drawer, w/mirror, $80; desk, $40; bookshelves, $20/each. 331-5526, between 5 p.m. & 7 p.m.

KITCHEN SINK - fittings, beautiful oak cabinets, 5' long, $350; portable dishwasher, old, works well, $49. Bill, Ext. 2378 or 758-3284.

BATHROOM VANITY - no top, 2 doors, dark wood, approx. 32", you pick up, $10. Ext. 7427 or 475-5591 after 5 p.m.

LIVING ROOM CHAIRS - Ethan Allan, v.g. cond. Dave, Ext. 5460.

AIR CONDITIONER - GE Carry-Cool, 5,000 Btu an hour, adjustable to various size windows, $75. Erkki, Ext. 5240 or 3235.

FURNITURE - sofa, loveseat, chair, ottoman, beige, excel. cond., $500. 821-2886.

LAMPS - $10, $20; table, $50; rugs, pink & green $20/each; steel shelves, $10. Kathy, 744-2203.

RECLINER - brown, like new, $180. Mark, Ext. 2957.

FREEZER - Amana, upright, 13 cu. ft., excel. cond., $175. 732-3002.

REFRIGERATOR - 4.8 cu. ft., white, ideal for office, school, excel. cond., ask. $60. Tang, Ext. 3869.

Tools, House & Garden

POOL EQUIPMENT - s/s ladder, vacuum hose, head & pole, leaf skimmer, brush. E. Rama, Ext. 4727.

HAND TRUCK - steel, 2 wheel Global, stair-climber type, model 233560, ball bearing wheels, 450 lb. cap., like new, $90. Bob, Ext. 2514.

LAWN MOWER - Sears, riding, 36", 10 h.p., $325. 567-9025 eves.

CHAISE LOUNGES - 2, children's, $10; 2 adult, $10; 2 sand chairs, $10; box fan, $10; horseshoes, $10. Kathy, 744-2203.

RED MAPLE TREES - Japanese, $15 - $50. 265-6542.

Sports, Hobbies & Pets

GOLF CLUBS - women's, $50/set; water skis, $20; board games, $5/ea.; Remington typewriter, $35; antique victrola, $20. 744-2203.

FISH TANK - 10 gallon, w/light, underground filter, heater, $40/all. Ext. 2582.

PUPPIES - Pekingese, male & female, AKC. Dan, 654-1731.

GOLF CLUBS - L/H No. 2, metal, wood, 13° loft, like new, orig. $60, sell for $30 firm; sand wedge, L/H, $10. Monte, Ext. 2050.

EXERCISE EQUIPMENT - total gym, $75; barbell weight set, $20; punching bag set, $25. Richie, Ext. 2175 or 734-7342.

BICYCLES - boy's, 20", black/red w/knobby tires, $35; Schwinn, girl's, 20", pink/white, excel. cond., $45. Paul, 727-4859.

TREADMILL - variable speed, like new, incline adjustment, $250 neg. 727-2471 after 5 p.m.

BICYCLE - Schwinn, 27", rear rack, side baskets, needs some work, $30; car bike rack, $15. Fred, Ext. 4353.

TENT - 4-man, $10. Kirby, Ext. 5460.

BICYCLE - man's, $50; Action rower, $30; Sonic humidifier, $15; lawn spreader, $7. 821-1933.

CAMERA - Kodak disc 3100, $10; Kodacolor disc film $3.50/box; Sharp stereo w/radio & cass. recorder, $10; colognes, $2-$5. Warren, Ext. 4939.

BICYCLE - Columbia, woman's, 10-speed, $35. Keith, 474-3863.

PIANO - Chickering, antique, upright, circa 1900, $650. Gene, Ext. 5614.

VIOLIN - ¾ size, $50; children's bicycles, $5-$20; women's 3-spd., $20; desks, $50; lamps, $15-$25; Ext. 3702 or 751-1042 after 7 p.m.

Audio, Video & Computers

PLOTTER - Hewlett Packard, multicolor, new, $800; digitizer for Macintosh-Macvision + b/w video camera, $450/both. Ext. 7699 or 821-1435.

MODEM - Smart, Hayes 2400B, internal card, 2400, 1200, 300 baud rate, orig. $339, new, in box, $119. Rich, Ext. 2050.

SLIMLINE CASE - new, for Commodore 64, easier to type on, place for Reset & Jiffy DOS sw, added cooling, $26. Paul, 727-4859.

COLOR TV - 19"; dresser, armchairs, shelves, lamps, all excel. cond., moving. 744-3070 eves.

COLOR TV - Sharp Linytron Plus, 19", good cond., $90. Erkki, Ext. 5240 or 3235.

AMPLIFIER - Harman Karden, Gerard, automatic record changer, two 12" speakers, walnut, $100. Albert, 727-6481.

Early Deadline For Ads Next Week

Due to the Wednesday holiday on July 4, all Bulletin deadlines for the issue of July 6 will be moved up by one day. Therefore, the deadline for classified ads for that issue will be 4:30 p.m. on Thursday, June 28.

Miscellaneous

TICKETS - Robert Plant, at Jones Beach, July 17. Linda, 345-0483.

MET TICKETS - July 4, 7:05 p.m., Loge reserved, section 25, row A, 4 seats, plus admittance to Diamond club, $50. Mike, Ext. 7941.

ENGAGEMENT RING - 14k yellow gold band, set w/18 full-cut diamonds, ½ karat center diamond, appraised at $1,250, best offer. Ext. 5141.

Free

TENT - 9-man, minor work, few holes, you pick up. 475-5591 after 5 p.m.

Yard & Garage Sales

EAST PATCHOGUE - furniture, electronics, linens, brass/silver, June 22-24, 10-4 p.m., 21 Redlef St., Woodside-Sipp-Corbin-Redlef. 924-4929.

EAST PATCHOGUE - June 23, 8 a.m.-6 p.m., 143 Donegan Ave.

Car Pools

PLAINVIEW - exit 43 LIE, 4th driver needed. Elliott, Ext. 2495.

DIX HILLS - will share costs. Rebecca, Ext. 2959.

PATCHOGUE - or East Patchogue, will pay. Ellie, Ext. 7328.

Real Estate

Real Estate advertised for sale or rent is available without regard for the race, color, creed, sex or national origin of the applicant.

For Rent

BAITING HOLLOW - 4 bdrm., cac, 2-car gar., contemporary. 751-4539.

CALVERTON - 2-bdrm. townhouse, 1½ baths, w/w, appl., patio, deck, $750. 878-0874 after 5 p.m.

EAST MORICHES - 2-bdrm. apt., ground floor of Victorian house, bath, kit., d/r, l/r, large yard, 3 blocks to bay, shops, school, $710/mo. + util. Mona, Ext. 5056 or 878-9384 eves.

EASTPORT - 3 bdrm., 2½ baths, 2,000 sq. ft. home, large porch, water view, 1 acre, gar., 5 appl., furniture avail., ready July 1. Ray, Ext. 2012 or 325-0928.

FARMINGVILLE - 1 bdrm., full bath, l/r, kit., priv. ent. & drive., $650/mo. + 1 mo. sec., incl. util. & cable, no pets, avail. July 1. Dan, 736-6441.

HOLBROOK - 1-bdrm. apt., kitchen-l/r combo, bath/shower, w/w, priv. downstairs ent., $675/mo. includes all + 1 mo. sec. A. Romano, Ext. 4024 or 472-0430 after 6 p.m.

MASTIC - 1 bdrm., kitchen-l/r combo, bath, priv. ent., $475/mo. + elec. 281-1659 eves & wknds.

NORTH SHIRLEY - 3-bdrm. ranch, fenced in yard, $900/mo. 281-7588 after 5 p.m

NORTH SHIRLEY - 2½ rm. apt., furn., priv. ent., newly decorated, 1 person only, nonsmoker, no pets, 5 min. from Lab and stores, $500/mo. pays all. 281-8044.

RIDGE - 1-bdrm. apt., l/r, kit., pvt. driveway, yard w/deck, 5 min. from Lab., $625/mo. includes all + 1 mo. sec. 924-0577.

SHIRLEY - 1-bdrm. apt., eik, l/r, full bath, w/w carpeting, working adult, no pets, avail. immed., $575/mo. incl. util. + 1 mo. sec. Carla, 281-1840.

SOUND BEACH - 2-bdrm. house, new kit., wooded lot, M/D, $825/mo. + util. Erik, Ext. 4603.

WADING RIVER - 3-bdrm. house, gar., full bsmt., walk to beach, $750/mo. Charles Miller, Ext. 2026 or 4228.

BAR HARBOR, ME - on Echo Lake, Acadia National Park, 1-room cottage w/sleep loft, kitchenette, bath, fully furn., w/deck, $375/wk., July, August & September. Bob, Ext. 2514.

EASTHAM, MA - on Cape Cod, 4-bdrm. home, fully furn., 2 baths, washer/dryer, dishwasher, deck, short walk to beaches, week open in Aug. Ext. 2384.

For Sale

BELLPORT VILLAGE - secluded, charming home, newly renovated, steps to golf/tennis, ⅔ acre, lots of French doors & windows, decks, outside hot tub, $265,000. 286-0422 eves.

BROOKHAVEN HAMLET - 3-4 bdrm. 2 baths, l/r w/fp, Jennaire, d/w, d/r w/atrium door, fam. rm, walk-in closets, new roof, vinyl siding, igp, walk to water, schools, parks, $144,900. Jan, 286-3623.

CENTEREACH - 4-bdrm. hi-ranch, l/r, d/r,, eik, 2 full baths, fm. rm w/fp, deck, pool, fenced yard, $143,900. 698-8514.

CENTERPORT - 200' waterfront on Northport Harbor, dock, 4-5 bdrm., 4 baths, 0.6 acre, $625,000. Bob, Ext. 4044 or 261-3890.

CORAM - Tanglewood Hills. 4-bdrm ranch, 2 baths, 2-car gar., huge attic, gas heat, fenced, sewers, new carpet & paint, $130,000. Ext. 3791 or 928-7154 after 7 p.m.

EAST MARION - beautiful 1 acre building lot, adjacent to Greenbelt. 325-0447.

EAST PATCHOGUE - 4 bdrm., l/r, 2 baths, 2 kitchens, den, 1½-car gar., poss. M/D, fenced, priv. yard, appl., extras, $137,000. Duke, Ext. 2957 or 289-3586.

EAST PATCHOGUE - 3-bdrm., 1 bath, l/r, eik, appl., full bsmt., ag pool, deck, excel. location, P-M School District, $122,000 neg. 654-5609.

MANORVILLE - immaculate, 1¼ landscaped acres, cul-de-sac, 3-bdrm. Colonial, 1½ bath, d/r, skylights, den, f/p, gar., solar h/w, circular drive., barn, ig pool, South Manor schools. Ext. 2503.

MATTITUCK - 2-bdrm. ranch, porch, full bsmt., deck, near marina, beach rights, $185,000. Dave, Ext. 5460.

MEDFORD - 3-bdrm. Colonial, 1½ baths, eik, d/r, l/r, den, gar., 0.4 acre, $139,000. 286-1571.

MIDDLE ISLAND - Coventry Manor, 3-bdrm. townhouse, 2 baths, kit., l/r, d/r, laundry rm., cac, 5 appl., patio, pool, tennis, carpet, ask. $102,000. Rosalie, Ext. 3160 or 289-5704 after 5 p.m.

MIDDLE ISLAND - 1-bdrm. condo, 2 baths, light fixture, upgraded carpet, priv. location, low taxes, common charges, $89,000. Ext. 2746 or 345-5476.

MIDDLE ISLAND - Lake Pointe, 2 bdrm., l/r-d/r combo, all appl., cac, gas heat, hot water, wood deck off master bdrm., pool, tennis & club house, cul-de-sac, asking $77,500 neg. Bob, 924-7316.

QUOGUE - ½ acre, 20'x40' in-ground pool, 6 rooms, 2 baths, l/r with fp, d/r, eik, 3 bdrm., fin. bsmt. w/priv. ent., 2 garages, priv. community, w/beach, docking, etc. Ext. 4470.

RIDGE - 3-bdrm. townhouse, 1½ baths, cac, w/w, all appl., upstairs newly carpeted, encl. redwood patio, storage room, low monthly main., 5 min. to Lab, price reduced to $93,000. Mary, 924-4328.

RIDGE - Scenic Hills, 4-bdrm. Colonial, 2½ bath, eik, d/r, l/r, w/w, gar., deck, ½ acre, minutes to Lab, $148,000. 924-7520.

SETAUKET - custom house, 3-4 bdrm., deeded beach rights, 3VSD. 473-4666.

SHOREHAM - 3-bdrm. Colonial, 1½ baths, l/r w/fp, d/r, eik, den, fin. bsmt., work rm., gar., low taxes, $173,000. Peter, 821-9513.

SHOREHAM - 4-bdrm. Colonial, 2½ baths, 2-car gar., low taxes, 2,000 sq. ft., immed. occup., $175,000. Barbara, 744-0960.

WADING RIVER - 5-bdrm. multilevel contemp., wooded acre, skylights, cathedral ceilings, sunroom decks, pool, gourmet kitchen, jacuzzi, fp, 3-rm. rental apt., red. to $196,000. 283-0155.

CLEARWATER, FL - 2-bdrm. condo, 1½ bath, l/r, d/r, gar., furn. $48,000. Charlie, Ext. 3082.

PALM BAY, FL - near Melbourne, 2-bdrm. condo, 2 full baths, l/r, d/r, kitchen, w/d, pvt. screened patio, completely furn., heated pool, near beach, malls, $65,000. 698-8514 after 5 p.m.

TAMPA, FL - 2-story house, 3 bdrm., l/r, kit., dining area, 2 full bath, large attic fan, 5 min. to Univ., south of Tampa and shopping mall, fruit trees, $65,000. Julian, 924-0960.

BOICEVILLE, NY - in Catskills, 2-bdrm. house, English wood/coal stove in fieldstone enclosure, 4+ acres, woods and meadow, year-round brook, mountain views, many extras. 821-0469.

Wanted

PEOPLE TO JOIN - non-denominational Christian fellowship group, every Thurs. at noon in the Rec. Bldg. in the apt. area. Pete, Ext. 3297.

LAWN MOWERS - old, any cond., gas-eng. type. Dan, 698-7322.

O'BLOOD/PLATELETS DONORS - for 5-yr. old Alisha, leukemia victim, daughter of Mitchell Sussman, S&EP, need is ongoing. For more information, call Sussman, Ext. 4212.

SOMEONE WHO TAPED - Bradshaw Series on PBS, Sun. & Mon. Ext. 7192.

APARTMENT - 2-bdrm., Patchogue/Medford, September. Terri, Ext. 2484 or 689-9328.

BOAT OWNER - willing to accept paying guest. Werner Pirkl, Ext. 2868.

BABY'S CAR SEAT - for 1 year old child. Tokio, Ext. 7837.

MINERALS - mineral collections, mineral books (old), any language. Plotkin, Ext. 7974 Wednesdays only, 798-2887 days.

BABY SITTER - 7/29-9/2, boys 3 & 6, visitor living on-site apt. Ext. 3727.

PARTNER - for 30' sailboat in Mt. Sinai. Ext. 7699.

MANDOLIN - new or used, any condition. Ken, Ext. 3867.

GROCERY RECEIPTS - Finast & King Kullen for BNL food drive, ask others to save them. Send to Carole Kerr, Bldg. 460.